



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 87110

\*87110\*

Page 2

July-10-12 3:19:24 PM

Item ID: D4271-013 Accept \*N900040100\* Setup Start \*NS1\*  
 Revision ID: Stop \*NS2\*  
 Item Name: Aft Beam Assembly  
 Start Date: 7/10/12 Start Qty: 2.00 \*2\* Cust Item ID:  
 Required Date: 8/24/12 Req'd Qty: 2.00 \*2\* Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start \*NR1\*  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	QC21- Final Inspection - Work Order Release	0.00							
*130*									
QC	Memo	0.00							
Quality Control									

MLJ 12/08/24

ME  
12-08-23

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

July-10-12 3:19:23 PM

Page 1

Work Order ID: 87110

Parent Item: D4271-013

Parent Item Name: Aft Beam Assembly

Start Date: 7/10/12

Required Date: 8/24/12

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP rev:A 10.11.18 new issue DD verf:EC IPP RevB 11.01.26 RevB dwg  
EC verified by:DD IPP RevC 11.07.20 per rev PD1 EC verified by:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D4271-027 End Fitting Assembly Aft Beam		Manufactured	No			100	Each	0.0000	1	2		8/2/12	
D4276-1 Aft Beam		Manufactured	No			100	Each	2.0000	1	2		8/2/12	
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				ST168		2							
				82639		2							
AN3C12A Bolts		Purchased	No			100	Each	155.0000	6	12		8/2/12	
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				GA		15							
				120449		15							
				ST351		140							
				117514		4							
				118112		5							
				118451		22							
				119510		1							
				120423		4							
				121259		4							
				121584		50							
				121689		50							

M122416

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

July-10-12 3:19:23 PM

Page 2

Work Order ID: 87110

Parent Item: D4271-013

Parent Item Name: Aft Beam Assembly

Start Date: 7/10/12

Required Date: 8/24/12

Start Qty: 2.00

Required Qty: 2.00

MS21043-3

Purchased

No

100

Each

1,086.0000

6

12

Nut

Location

Loc Qty

Loc Code

FG

72

103691

72

ST301

1014

118077

2

118614

12

118686

30

119758

20

121255

93

121708

857

NAS1149C0332R

Purchased

No

100

Each

8,994.0000

12

24

Washer

Location

Loc Qty

Loc Code

297

8972

122063

8972

ST297

22

121509

22

July-10-12 3:19:23 PM

Shop Packet Print

Page 2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

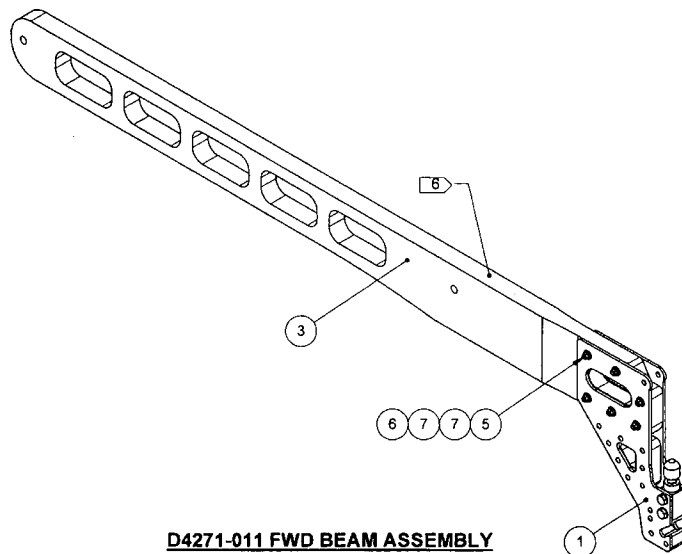
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

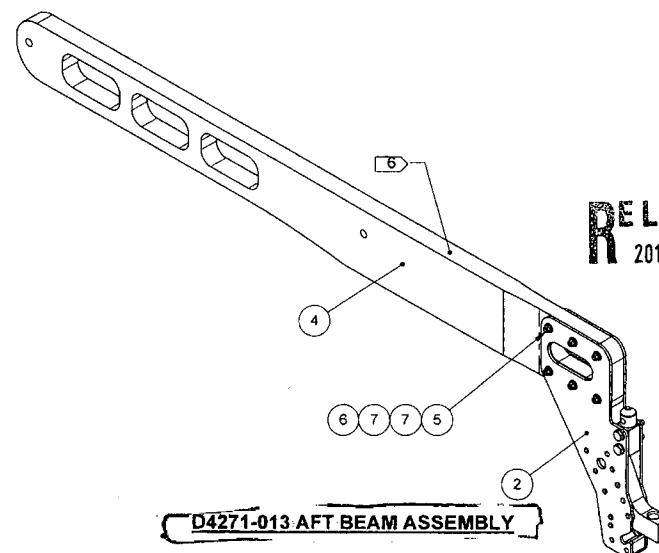
**NOTE:** Date & initial all entries



ITEM	QTY -011	QTY -013	P/N	DESCRIPTION
	X		D4271-011	FWD BEAM ASSEMBLY
		X	D4271-013	AFT BEAM ASSEMBLY
	-	-	D4271-021	DELETED AT REVISION D
	-	-	D4271-023	DELETED AT REVISION D
1	1	-	D4271-025	FWD BEAM END FITTING ASSEMBLY
2	-	1	D4271-027	AFT BEAM END FITTING ASSEMBLY
3	1	-	D4275-1	FWD BEAM
4	-	1	D4276-1	AFT BEAM
5	6	6	AN3C12A	BOLT
6	6	6	MS21043-3	NUT
7	12	12	NAS1149C0332R	WASHER



**D4271-011 FWD BEAM ASSEMBLY**



**D4271-013 AFT BEAM ASSEMBLY**

**RELEASED**  
2011-07-28

**NOTES:**

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART IDENTIFY WITH DART P/N "D4271-0XX" AND B/N "BXXXXX"  
PER DART QSI 044 6.1 (FINE POINT MARKER)
- 7) WEIGHT -011: 11.02 lbs  
-013: 12.97 lbs

D	DELETED -021 & -023 REPLACED BY -025 & -027 FOR Q.R. STEP INSTALLATION	AJS	11.07.14
C	ADDED -021 & -023 FOR EASE OF CONFIGURATION MANAGEMENT. REFORMAT SEE PREV REV FOR DETAILS.	AJS	11.07.12
B	ITEM 10 CHANGED FROM AN3C12A TO AN4C13A	SC	10.12.01
A	NEW ISSUE	SC	10.11.25
REV	DESCRIPTION	BY	DATE
DESIGN	JPH	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. D
MFG. APPR.	<i>[Signature]</i>	D4271	SHEET 1 OF 3
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	<b>SUPPORT BEAM ASSEMBLIES</b>	
DATE	11.07.14	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

**Dart Aerospace Ltd**

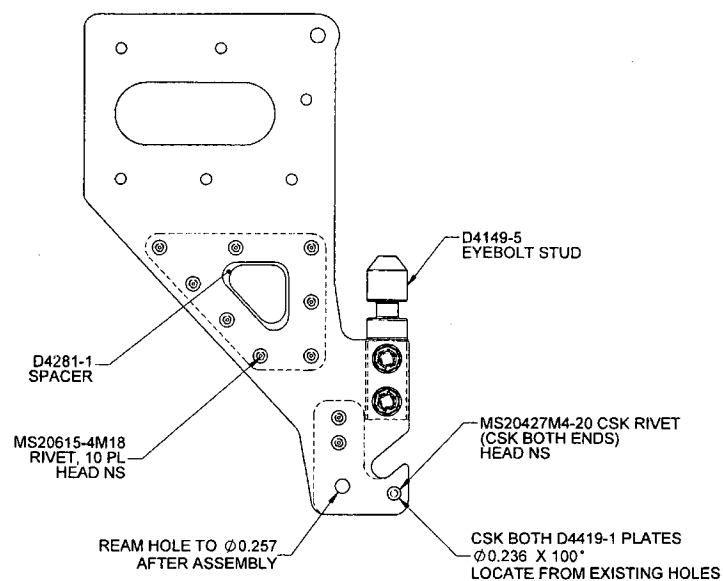
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

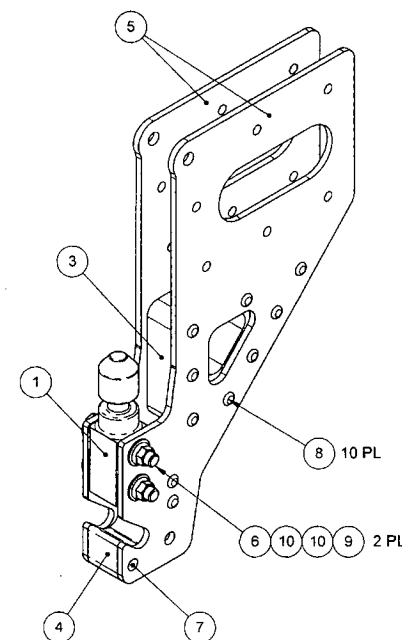
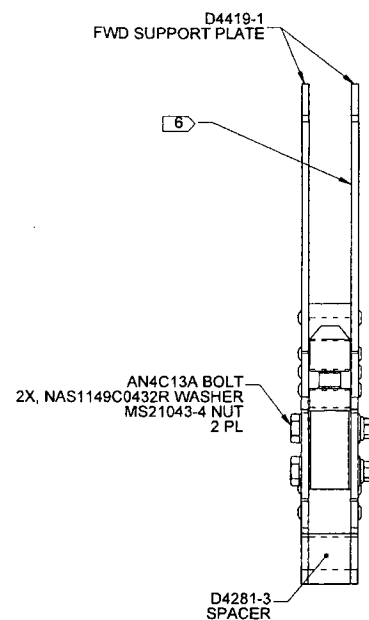
ITEM	QTY -025	P/N	DESCRIPTION
	X	D4271-025	FWD BEAM END FITTING ASSEMBLY
1	1	D4149-5	EYEBOLT STUD
3	1	D4281-1	SPACER
4	1	D4281-3	SPACER
5	2	D4419-1	FWD SUPPORT PLATE
6	2	AN4C13A	BOLT
7	1	MS20427M4-20	CSK RIVET (MONEL)
8	10	MS20615-4M18	RIVET (MONEL)
9	2	MS21043-4	NUT
10	4	NAS1149C0432R	WASHER



# **D4271-025 FWD BEAM END FITTING ASSEMBLY**

## **NOTES:**

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART IDENTIFY WITH DART P/N "D4271-025" AND B/N "BXXXXX" PER DART QSI 044 6.1 (FINE POINT MARKER)
- 7) WEIGHT: 2.69 lbs



**RELEASED**  
2011-07-28

DESIGN	JPH	<b>DART AEROSPACE LTD</b>	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED	JP	DRAWING NO.	REV. D
MFG. APPR.	JP	<b>D4271</b>	SHEET 2 OF 3
APPROVED	JP	TITLE	SCALE
DE APPR.	JP	<b>SUPPORT BEAM ASSEMBLIES</b>	NTS
DATE	11.07.14	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

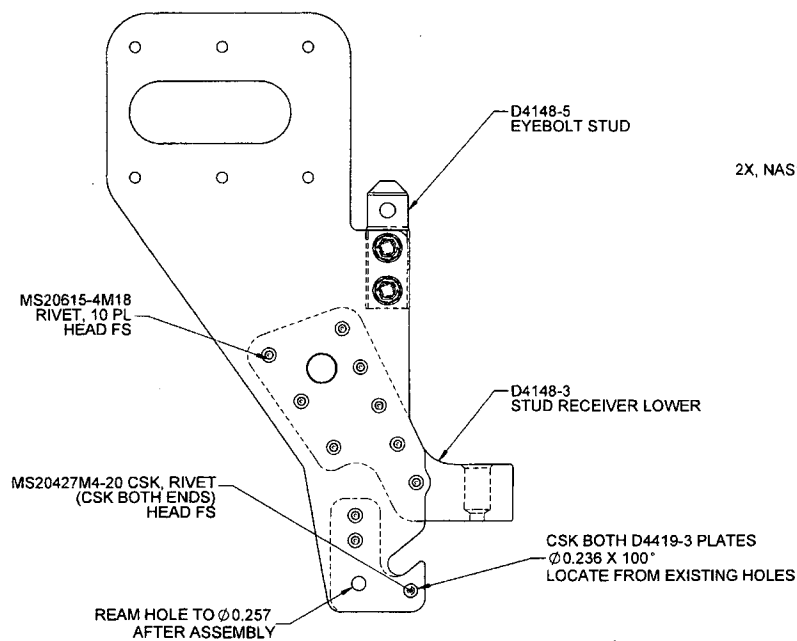
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

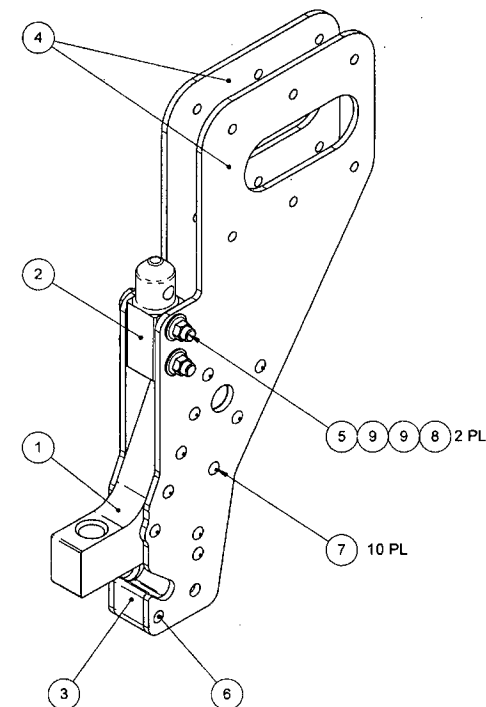
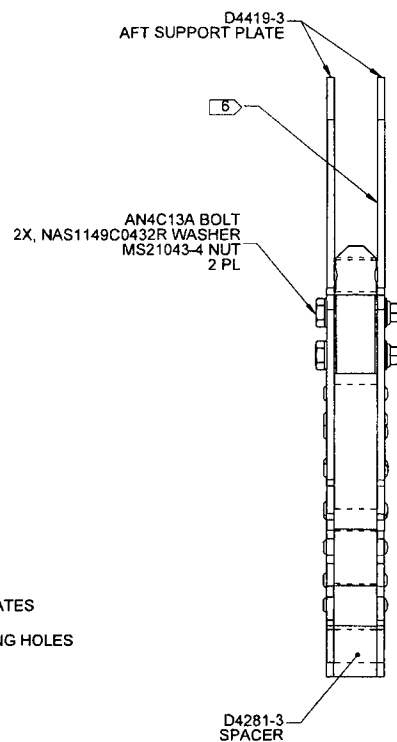
ITEM	QTY -027	P/N	DESCRIPTION
	X	D4271-027	AFT BEAM END FITTING ASSEMBLY
1	1	D4148-3	STUD RECEIVER LOWER
2	1	D4148-5	EYEBOLT STUD
3	1	D4281-3	SPACER
4	2	D4419-3	AFT SUPPORT PLATE
5	2	AN4C13A	BOLT
6	1	MS20427M4-20	CSK RIVET (MONEL)
7	10	MS20615-4M18	RIVET (MONEL)
8	2	MS21043-4	NUT
9	4	NAS1149C0432R	WASHER



**D4271-027 AFT BEAM END FITTING ASSEMBLY**

**NOTES:**

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART IDENTIFY WITH DART P/N "D4271-027" AND B/N "BXXXXX" PER DART QSI 044 6.1 (FINE POINT MARKER)
- 7) WEIGHT: 4.25 lbs



87110

**RELEASED**  
2011-07-28

DESIGN	JPH	<b>DART AEROSPACE LTD</b>	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. D
MFG. APPR.		D4271	SHEET 3 OF 3
APPROVED		TITLE	SCALE
DE APPR.		SUPPORT BEAM ASSEMBLIES	NTS
DATE	11.07.14	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR DISCLOSED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries